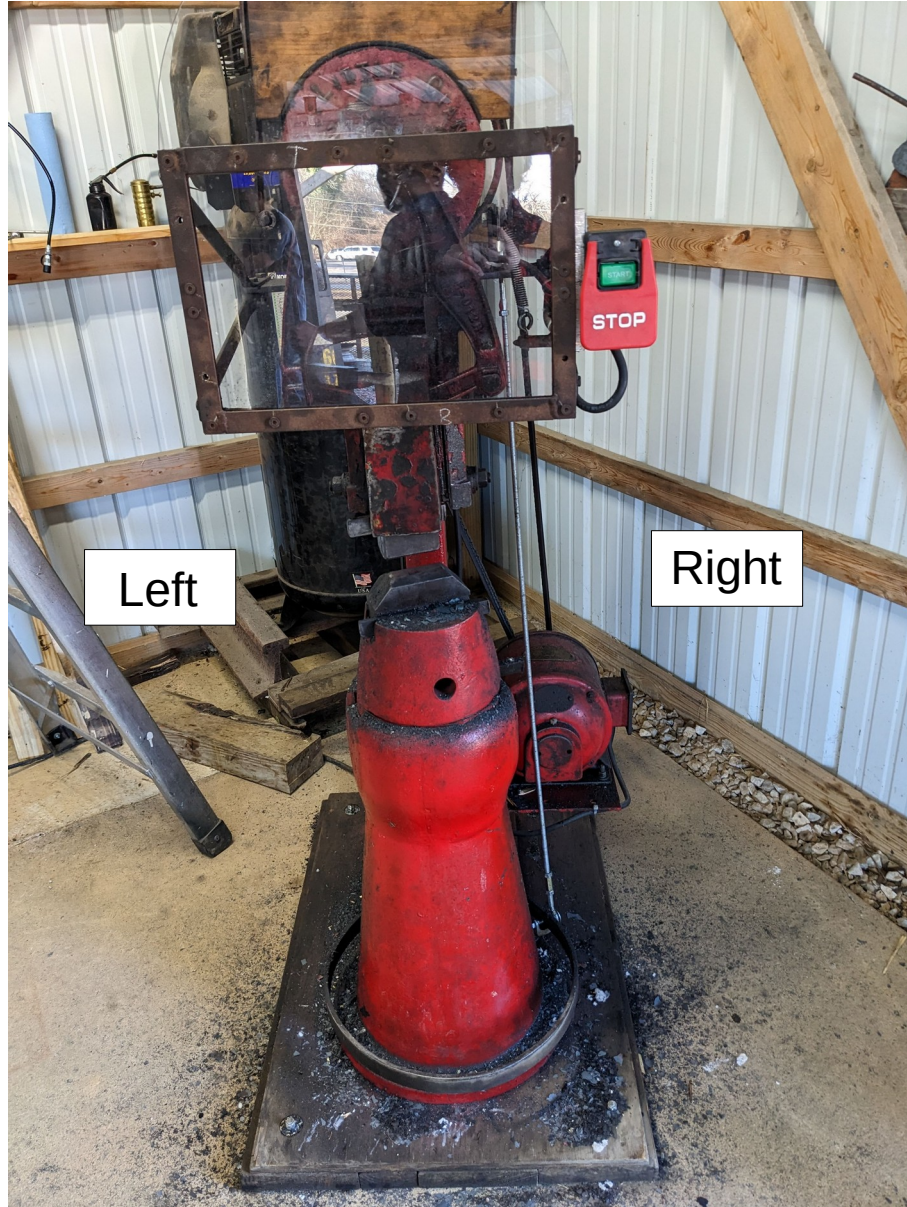


# Knox Makers Little Giant Power Hammer



"Left" and "right" in this guide are relative to the machine when viewed from the front.

There are three key things to bear in mind when using or maintaining our power hammer, aka Thumper:

1. It needs to be pretty well dripping with oil. You should oil the machine at the start of each use and for each hour of use.
2. It's a lot of metal parts moving around, and you should keep your eyes peeled for things that look or sound "off," most especially around the dies.
3. Be careful! This is a dangerous machine that can send metal parts – including bright orange-hot parts – flying.

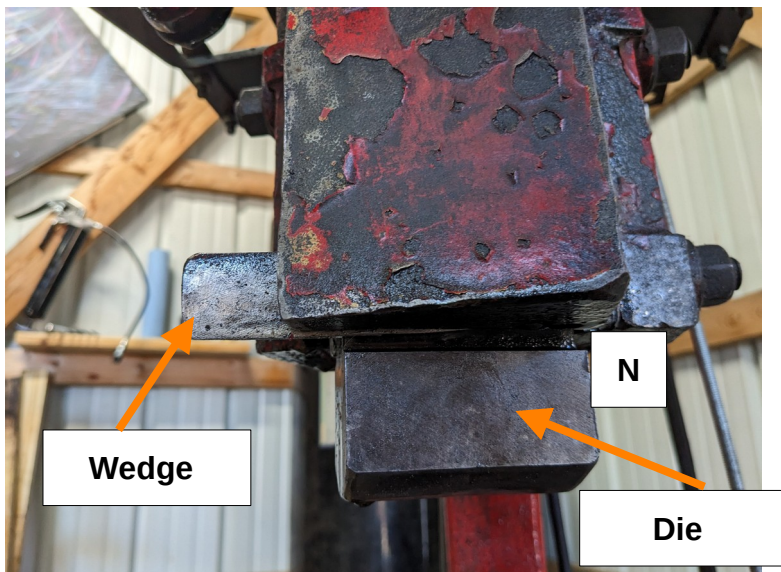
# Dies

The dies are the lower anvil and the upper hammer part of the machine. We have both flat and rounded dies, which are good for different purposes.

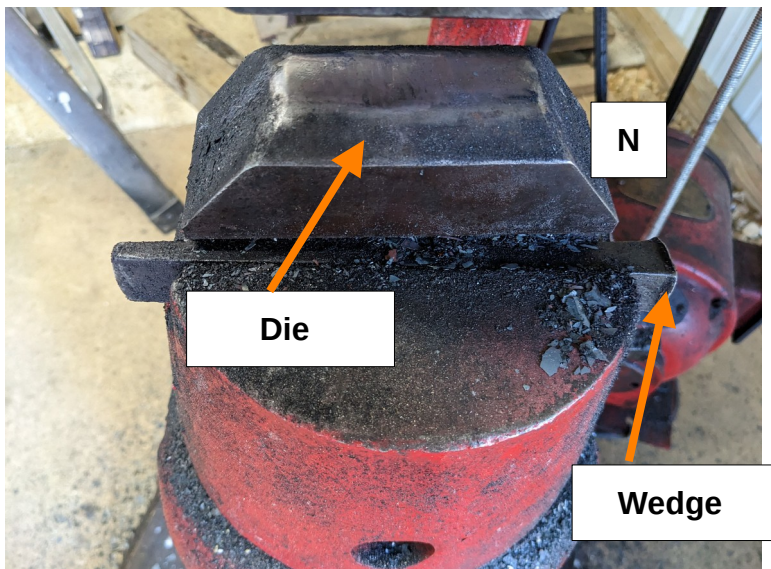
When changing dies, look for the end of the die that has an “N” stamped faintly into it. That end of each die should face toward the right side of the power hammer.

Dies are held in place by metal wedges, which should be oriented with the fatter end to the right. Tap these in firmly to seat the dies. Make sure you see no air above the top edge of the top die or below the bottom of the bottom die.

They should also be aligned when you look at them from the front, pretty well centered as pictured below. If the dies do not line up, adjust by sliding the dies as needed and re-tightening by hammering the wedges tight. If the top die doesn't want to stay in place, shift both dies to the right a little so that more of the fat end of the top die's edge is available to help wedge the die in place.



Upper or “hammer” die.



Lower or “anvil” die.



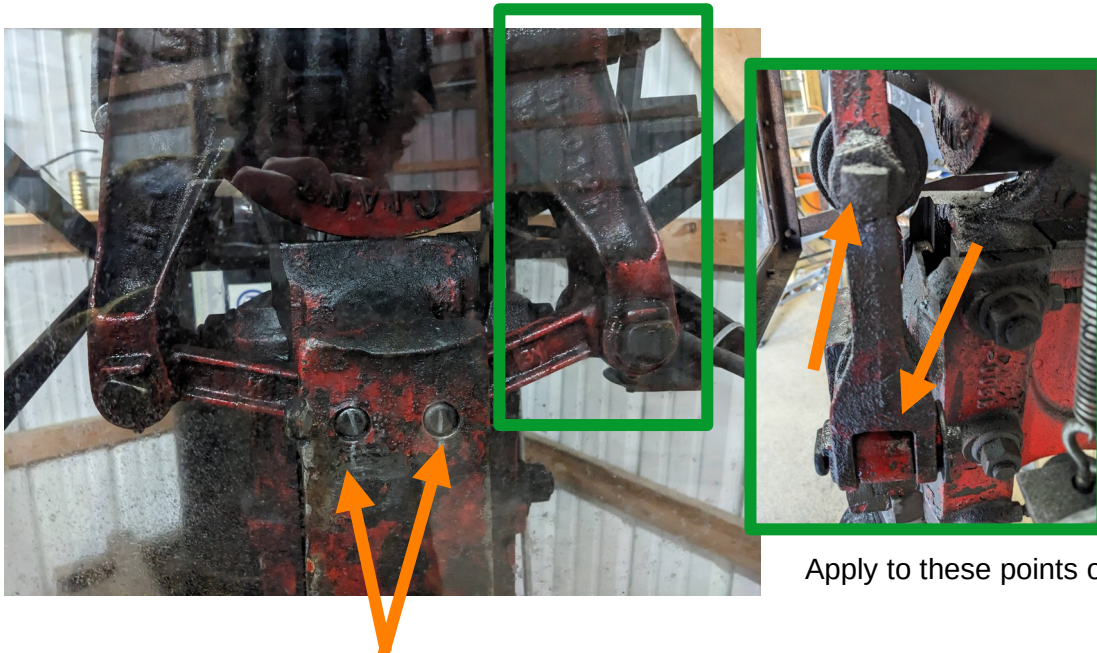
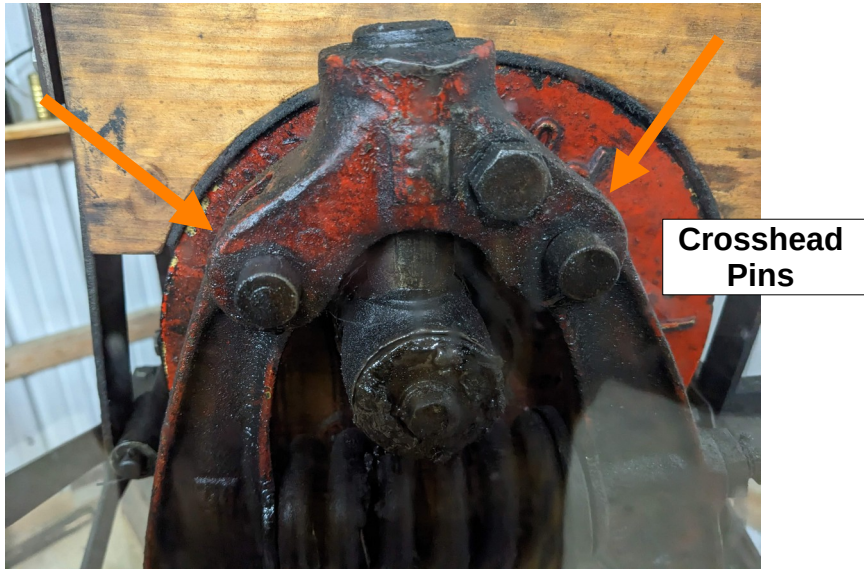
# Oil

We use chainsaw oil to keep the machine well lubricated. The oil can is pictured below. Prime it with a few pumps if needed and apply using the nozzle to all areas indicated on subsequent pages.

If the can is empty or running low, refill from the jug of chainsaw oil.



## Oil - Front



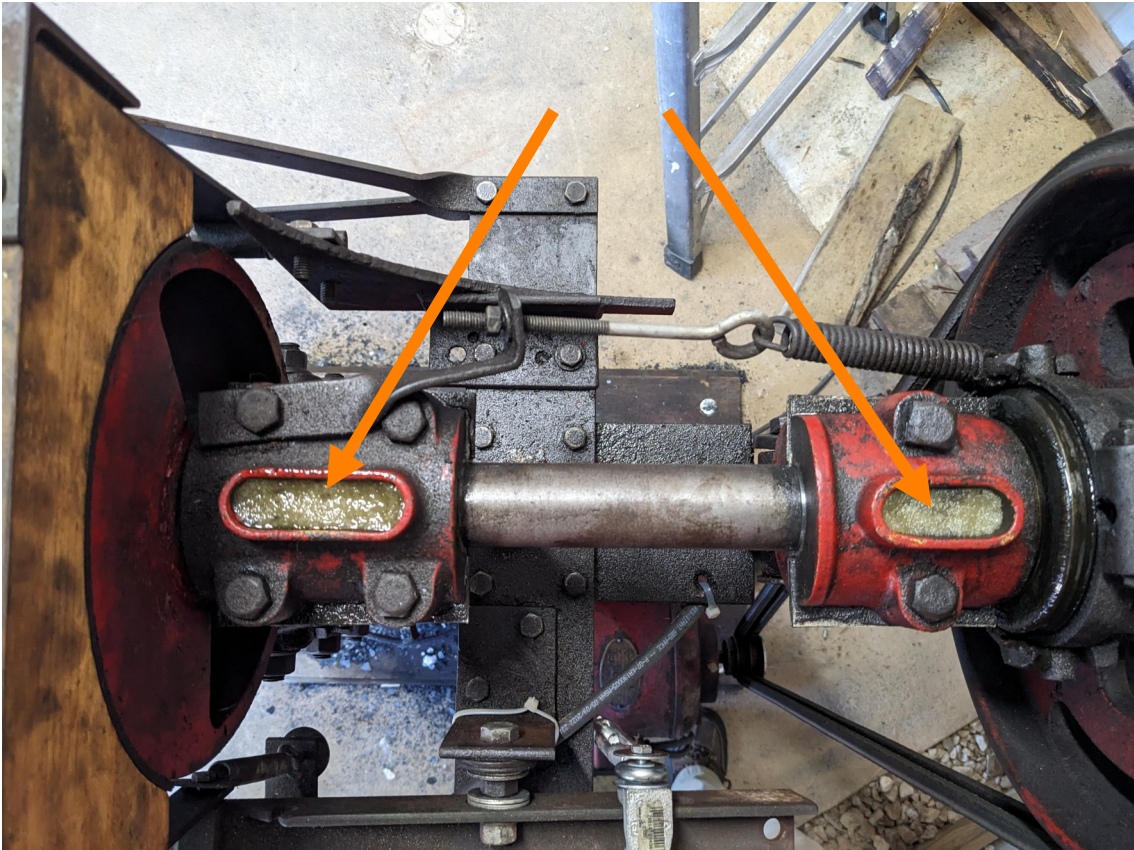
Assure that the lines on these pins are roughly oriented vertically.

Apply to these points on both sides.



## Oil – Main Bearings (Top of Machine)

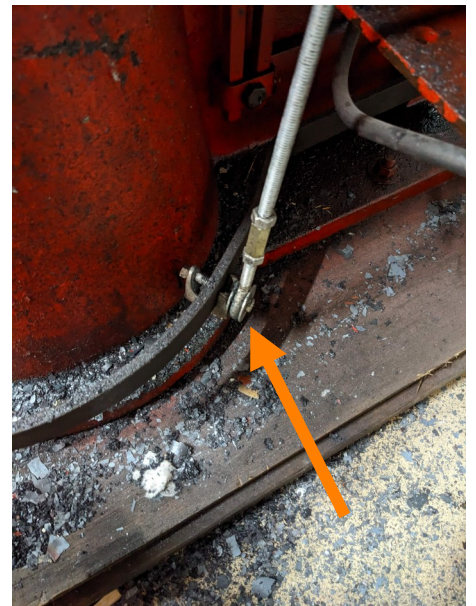
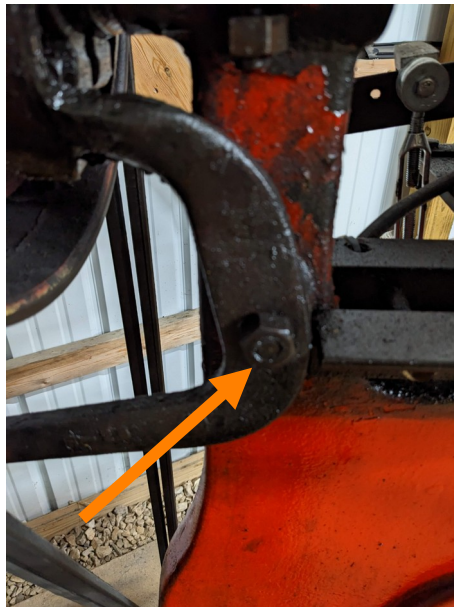
Oil these two wells liberally. Think puddles.



## Oil – Back of Machine



Apply some oil here and to metal-on-metal in this clutch assembly (right-hand picture).





# Grease

Grease must be applied to the hammer once a month. Blacksmithing zone czars will take care of this, but here's the relevant info.



The grease gun. Fit the nozzle onto the zerks pictured below (it can be a little tricky) and apply a couple of good squirts.



Front zerk, behind the clear guard.



Rear zerk, on the back of the clutch assembly.

## Nuts to Tighten

Check these nuts occasionally to make sure they're tight.  
There's a set on each side of the machine.





## Treadle Tension

If the treadle begins to feel loosey goosey and isn't engaging the hammer properly, check to see if the clutch rod needs to be tightened a little.

